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## Treating acute cough: wet versus dry – have we got the paradigm wrong?

To the Editor:

Over-the-counter (OTC) medicines are relied on by millions of patients worldwide to provide relief from acute cough, which is almost exclusively caused by acute viral upper respiratory tract infection (URTI). The worldwide market for such medicines is enormous, amounting to €5.77 billion in 2014 (source: IMS Health, Danbury, CT, USA). Doubts have been expressed as to the efficacy of these drugs [1], and there is no doubt that simple measures used in proprietary and home remedies can have significant benefit through a poorly defined “demulcent” effect. However, significant additional benefit from pharmacotherapy can also be demonstrated [2].

No new drug has been licensed for acute cough in over 30 years. Much of the literature supporting the licensed indications for current OTC medicines is, unsurprisingly, poor by modern standards. What is perhaps more worrying is the continuing use of the paradigm of dry and wet/productive URTI cough by the regulatory authorities and in pharmacies (e.g. [www.nhs.uk/conditions/cough/pages/introduction.aspx](http://www.nhs.uk/conditions/cough/pages/introduction.aspx)). This is an anachronism from the era of rampant tuberculosis. In acute URTI there is, in our opinion, little difference between a dry cough and that productive of minimal amounts of sputum. Acute cough, along with persistent cough, is now recognised to be a disorder of the vagal sensory afferents: the so-called cough hypersensitivity syndrome [3]. As an example of this paradigm shift, the marketed “expectorant” guaifenesin is now revealed to have significant effects on cough hypersensitivity [4].

We suggest that it is time to abandon the dry/wet classification of acute cough due to URTI. The cough, productive or not, is there for the benefit of the virus, not the patient, by enhancing viral transmission to the next victim [5–7]. This is why URTIs make your nose run. Indeed, it could be beneficial to inhibit cough to diminish person-to-person spread [8]. It is certainly not harmful to normalise the cough reflex in those with simple URTI. Clearly, in patients with protracted productive cough (bronchorrhoea) or in neurologically impaired patients with a decreased cough reflex, a separate and considered opinion is needed. What is paramount to our understanding of the many drugs in the OTC cough market is demonstrating efficacy using the now established measures of cough counting, cough challenge and validated subjective tools, rather than the current paradigm that a bit of phlegm will somehow drown the patient.

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It is time to abandon the dry/wet classification of acute cough due to URTI <http://ow.ly/Sfc1X>

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